

# ● PRINTER RUSH ●

(PTO ASSISTANCE)

2nd Query

Application : <u>09/899376</u>	Examiner : <u>NICKO1</u>	GAU : <u>1642</u>
From: <u>J. Blach</u>	Location: <u>IDC</u> FMF FDC	Date: <u>4/15/05</u>
Tracking #: <u>06033977</u>		Week Date: <u>11/1/04</u>

DOC CODE	DOC DATE	MISCELLANEOUS
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<input type="checkbox"/> 312	_____	
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Attn Chief Draftsperson:

[RUSH] MESSAGE:

Please provide better set of colored drawings.  
all pages stick together and can not be separated.  
Thank you!

[XRUSH] RESPONSE: Attorney supplied three set of  
replacement color drawings.

PLEASE NOTE: XRUSH response of 3-31-05 is  
erroneous and should be disregarded. Correct  
color drawings paragraph appears in A... of 4-21-03. See  
copy enclosed.

INITIALS: DGO

detecting intact peptide in blood 24h after injection), protects its cargo during transit, and accumulates sufficiently in a tumor or tumors within 48 hours.

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## BRIEF DESCRIPTION OF THE DRAWINGS

The following drawings form part of the present specification and are included to further demonstrate certain aspects of the present invention. The invention may be better understood by reference to one or more of these drawings in combination with the detailed description of specific embodiments presented herein.

FIG. 1A through 1F show internalization of HN-1. FIG. 1A through 1C and 1F show fluorescence microscopy, wherein Nomarsky optics of the corresponding views are shown in 1A, 1B and 1F. FIG. 1A demonstrates MDA177Tu cells were incubated with the indicated agent. In FIG. 1B through 1F peptide incubation was performed as in FIG. 1A. FIG. 1B shows indicated cells which were incubated with FITC-HN-1. FIG. 1C demonstrates MDA177Tu cells which were incubated with the indicated agent. FIG. 1D illustrates a protease protection assay. FITC-HN-1 incubated MDA177Tu cells (lanes 4-7) were treated as indicated, electrophoresed, and viewed as described in Examples. FIG. 1E illustrates subcellular fractionation. MDA177Tu cells incubated with FITC-HN-1 were separated into nuclear (lane 2), cytoplasmic (lane 3) and cell membrane (lane 4) fractions, electrophoresed, and viewed. Equivalent amounts of each fraction were loaded. FIG. 1F shows a competition assay. MDA177Tu cells were incubated with FITC-HN-1 in the presence of excess unlabeled specific competitor (SP) or a nonspecific competitor (NSP). (Bar size, 58  $\mu$ m for (FIG. 1A); 38  $\mu$ m for (FIG. 1B); 14  $\mu$ m for (FIG. 1C); 29  $\mu$ m for (FIG. 1F))

FIG. 2 demonstrates HN-1 binds to primary HNSCC. Histological sections (containing tumor and the corresponding normal tissue) of a human head and neck squamous cell cancer biopsy sample were incubated with the indicated agent and viewed by fluorescence microscopy, as described in Examples. The data shown represent the

AMENDMENT

09/899,376  
paper filed  
4-21-03

In the Specification

Insert the following paragraph at page 14, line 6:

The patent or application file contains at least one drawing executed in color. Copies of this patent or patent application publication with color drawing(s) will be provided by the U.S. Patent and Trademark Office upon request and payment of the necessary fee.

In the Claims

Please amend the claims as follows:

1. (Amended) A peptide that targets a tumor cell, wherein said peptide comprises HN-1, a variant of HN-1, or a HN-1 related peptide and said peptide is internalized by said tumor cell.

7. (Amended) A composition comprising:

- a) a drug; and
- b) a peptide that targets a tumor cell, wherein said peptide comprises HN-1, a variant of HN-1, or a HN-1 related peptide and said peptide is internalized by said tumor cell.

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

*In re* Application of:

Frank D. HONG and  
Gary CLAYMAN

Serial No.: 09/899,376

Filed: July 2, 2001

For: ISOLATION OF A CELL-SPECIFIC  
INTERNALIZING PEPTIDE THAT  
INFILTRATES TUMOR TISSUE FOR  
TARGETED DRUG DELIVERY

Group Art Unit: 1642

Examiner: C. H. Yaen

Atty. Dkt. No.: UTSC:645US/SLH

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MR. OLSON

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THANK YOU

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